Cellular Immunology

AN INTERNATIONAL JOURNAL

EDITOR-IN-CHIEF: H. Sherwood Lawrence

Volume 117, 1988

ACADEMIC PRESS, INC.
Harcourt Brace Jovanovich, Publishers
San Diego New York Boston
London Sydney Tokyo Toronto

Copyright © 1988 by Academic Press, Inc.
All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (27 Congress Street, Salem, Massachusetts 01970), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1988 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0008-8749/88 $3.00

MADE IN THE UNITED STATES OF AMERICA

Contents of Volume 117

NUMBER 1, NOVEMBER 1988

ELIZABETH CASTANEDA, ELMER BRUMMER, DEMOSTHENES PAPPAGIANIS, AND DAVID A. STEVENS. Regulation of Immune Responses by T Suppressor Cells and by Serum in Chronic Paracoccidioidomycosis 1

ZAIR TOVAR, MICHAEL DAUPHINÉE, AND NORMAN TALAL. Synergistic Interaction between Anti-CD3 and IL-2 Demonstrated by Proliferative Response, Interferon Production, and Non-MHC-Restricted Killing 12

BERND GANSBACHER AND KAREN S. ZIER. Regulation of HLA-DR, DP, and DQ Expression in Activated T Cells 22

ROBERT L. FAIRCHILD AND JOHN W. MOORHEAD. Soluble Factors in Tolerance and Contact Sensitivity to DNFB in Mice. VIII. Regulation of T Suppressor Cell Function by Autoreactive T Helper Cells 35

R. LANDMANN, M. WESP, AND P. DUKOR. Modulation of Interferon-γ-Induced Major Histocompatibility (MHC) and CD14 Antigen Changes by Lipophilic Muramyltripeptide MTP-PE in Human Monocytes 45

F. MELINDA CARVER AND JUDITH M. THOMAS. Natural Killer Cells in Rhesus Monkeys: Properties of Effector Cells Which Lyse Raji Targets 56

DEBRA J. WAITE, RICHARD A. MILLER, AND GEOFFREY H. SUNSHINE. Neonatal Tolerance Induction to Mls^a. I. Tolerance to Mls^a Is Restricted by Shared MHC Determinants 70

DEBRA J. WAITE AND GEOFFREY H. SUNSHINE. Neonatal Tolerance Induction to Mls^a. II. T Cells Induce Tolerance to Mls^a 78

OTONIEL MARTÍNEZ-MAZA, ROBERT A. FIGLIN, JANIS V. GIORGI, AND JOHN L. FAHEY. Selective Decrease in Leu8-Negative T Cell Subpopulations following Treatment with Recombinant Interferon-α2a (rIFN-α2a) 89

RICHARD L. DEEM, FERGUS SHANAHAN, ADRENE NIEDERLEHNER, AND STEPHAN R. TARGAN. Role of the CD45 (T-200) Molecule in Anti-CD3-Triggered T Cell-Mediated Cytotoxicity ... 99

DRUIE E. CAVENDER, DORIAN O. HASKARD, DOMINIC MALIAKKAL, AND MORRIS ZIFF. Separation and Characterization of Human T Lymphocytes with Varying Adhesiveness for Endothelial Cells 111

JYOTSNA NATH, WILLIAM LAFUSE, AND BRUCE S. ZWILLING. Regulation of Class II MHC Gene Expression by Macrophages from Bcg^r and Bcg^s Mice 127

NICHOLAS MANOLIOS, CAROLYN L. GECZY, AND LESLIE SCHRIEBER. High Endothelial Venule Morphology and Function Are Inducible in Germ-Free Mice: A Possible Role for Interferon-γ 136

N. MANOLIOS, C. GECZY, AND L. SCHRIEBER. Anti-Ia Monoclonal Antibody (10-2.16) Inhibits Lymphocyte–High Endothelial Venule (HEV) Interaction 152

DRAGANA LJ. JANKOVIC, ORLY ABEHSIRA-AMAR, MARIE KORNER, CLAUDE ROTH, YASUMICHI HITOSHI, KIYOSHI TAKATSU, AND JACQUES THEZE. IL-4, but Not IL-5, Can Act Synergistically with B Cell Activating Factor (BCAF) to Induce Proliferation of Resting B Cells 165

DAVID W. KENNEDY, MARC E. WEKSLER, AND CARLO RUSSO. Peripheral but Not Thymic T Cells Participate in an Autoreactive T Cell Network 177

SUSAN J. STULL, MICHAEL KYRIAKOS, GORDON C. SHARP, AND HELEN BRALEY-MULLEN. Prevention and Reversal of Experimental Autoimmune Thyroiditis (EAT) in Mice by Administration of Anti-L3T4 Monoclonal Antibody at Different Stages of Disease Development 188

SHIRO AIZAWA AND TOSHIHIKO SADO. Study on the Possible Factors Influencing the Expression of H-2 Restriction Specificity and Ir Phenotype of Antigen-Specific Proliferative T Cells with Various Types of Radiation Chimeras 199

JINDRICH MADAR, GEOFFREY L. ASHERSON, VITTORIO COLIZZI, AND MAREK ZEMBALA. IL-2 Influences the Balance between Immunity and Unresponsiveness in the Picryl (TNP) Contact Sensitivity System by Blocking the Development or Action of an Lyt-2$^+$, I-J$^+$ T Suppressor Cell 209

HISTORY OF IMMUNOLOGY

LEON CHERNYAK AND ALFRED I. TAUBER. The Birth of Immunology: Metchnikoff, the Embryologist 218

PAPERS TO APPEAR IN FORTHCOMING ISSUES 234

JANYA SIRIPONT, JULIE M. TEBO, AND RICHARD F. MORTENSEN. Receptor-Mediated Binding of the Acute-Phase Reactant Mouse Serum Amyloid P-Component (SAP) to Macrophages 239

HIROSHI SAITO, KAZUO OSHIMI, YOKO OSHIMI, AND HIDEAKI MIZOGUCHI. Characterization of Interleukin 2-Expanded Human Peripheral Blood Lymphocytes: Not Only NKH-1$^+$-NK Cells but Also NKH-1$^+$ and NKH-1$^-$ T Cells Are LAK Effectors 253

MICHAEL ZEIRA AND RUTH GALLILY. Interaction between Thymocytes and Thymus-Derived Macrophages. I. Surface Components Participating in Mutual Recognition 264

M. ZEIRA AND R. GALLILY. Interaction between Thymocytes and Thymus-Derived Macrophages. II. Engulfment of Thymocytes by Macrophages 277

GARY M. HALLIDAY, LOIS L. CAVANAGH, AND H. KONRAD MULLER. Antigen Presented in the Local Lymph Node by Cells from Dimethylbenzanthracene-Treated Murine Epidermis Activates Suppressor Cells 289

JAVIER AVILA-CARIÑO, SIGURBJÖRG TORSTEINSDOTTIR, MARIA T. BEJARANO, GEORGE KLEIN, EVA KLEIN, AND MARIA G. MASUCCI. Combined Treatment with Interferon (IFN)-γ and Tumor Necrosis Factor (TNF)-α Up-Regulates the Expression of HLA Class I Determinants in Burkitt Lymphoma Lines 303

ANNE WILSON, LESLEY M. DAY, ROLAND SCOLLAY, AND KEN SHORTMAN. Subpopulations of Mature Murine Thymocytes: Properties of CD4$^-$CD8$^+$ and CD4$^+$CD8$^-$ Thymocytes Lacking the Heat-Stable Antigen 312

MARTINE LEVY, ANTONIO BANDEIRA, LUCIANA FORNI, AND ANTONIO COUTINHO. A Phenotypic and Functional Analysis of Long-Lived B and T Lymphocytes 327

BRUCE A. FUCHS, KERRY S. CAMPBELL, AND ALBERT E. MUNSON. Norepinephrine and Serotonin Content of the Murine Spleen: Its Relationship to Lymphocyte β-Adrenergic Receptor Density and the Humoral Immune Response *in Vivo* and *in Vitro* 339

L. K. L. JUNG, J. M. BJORNDAHL, AND S. M. FU. Dissociation of TPA-Induced Down-Regulation of T Cell Antigens from Protein Kinase C Activation 352

DENNIS M. KLINMAN, YOSHIAKI ISHIGATSUBO, AND ALFRED D. STEINBERG. Studies on the Influence of the Internal Environment on Autoantibody Production by B Cells 360

WILLIAM A. JENSEN, RICHARD M. ROSE, RICHARD H. BURKE, JR., KRISTEN ANTON, AND HEINZ G. REMOLD. Cytokine Activation of Antibacterial Activity in Human Pulmonary Macrophages: Comparison of Recombinant Interferon-γ and Granulocyte-Macrophage Colony-Stimulating Factor 369

JAYNE LESLEY, ROBERTA SCHULTE, AND ROBERT HYMAN. Kinetics of Thymus Repopulation by Intrathymic Progenitors after Intravenous Injection: Evidence for Successive Repopulation by an IL-2R$^+$, Pgp-1$^-$ and by an IL-2R$^-$, Pgp-1$^+$ Progenitor 378

JUDY M. TEALE AND KENNETH S. LANDRETH. Effect of Growth and Differentiation Stimuli on the Development of Antigen-Responsive B Cells in Fetal Liver 389

SHYR-TE JU, PEGGY STRACK, DON STROMQUIST, AND ROSEMARIE H. DEKRUYFF. Cytolytic Activity of Ia-Restricted T Cell Clones and Hybridomas: Evidence for a Cytolytic Mechanism Independent of Interferon-γ, Lymphotoxin, and Tumor Necrosis Factor-α 399

KATHERINE KELLY, LINDA PILARSKI, KEN SHORTMAN, AND ROLAND SCOLLAY. CD4$^+$ CD8$^+$ Cells Are Rare among *in Vitro* Activated Mouse or Human T Lymphocytes 414

SHORT COMMUNICATION

SUDHIR GUPTA, SASTRY GOLLAPUDI, AND BHARATHI VAYUVEGULA. Lipopolysaccharide-Induced Murine B Cell Proliferation: A Role of Protein Kinase C 425

LETTER TO THE EDITOR

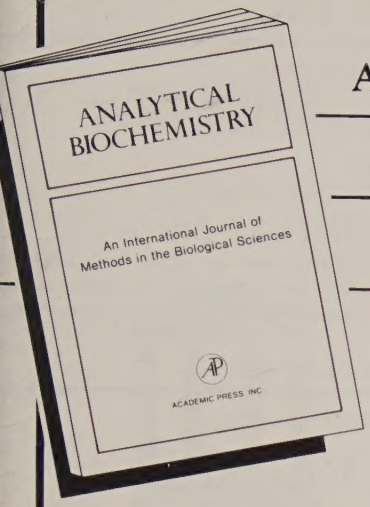
WILLIAM E. PAUL. International Union of Immunological Societies. Nomenclature Committee Working Group on Lymphokines 430

ANNOUNCEMENT 433

PAPERS TO APPEAR IN FORTHCOMING ISSUES 434

AUTHOR INDEX FOR VOLUME 117 438

CUMULATIVE SUBJECT INDEX FOR VOLUMES 111–117 440



An International

Journal of Methods

in the Biological Sciences

ANALYTICAL BIOCHEMISTRY

Editor-in-Chief: **William B. Jakoby**
National Institutes of Health, Bethesda, Maryland
Editorial Office: 1250 Sixth Avenue, San Diego, CA 92101

Now Publishing Papers on Methods in:

BIOCHEMISTRY • CELL BIOLOGY • MEMBRANES • IMMUNOLOGY • MOLECULAR BIOLOGY, including Cloning, Genetics, Mutagenesis, and Sequencing

Analytical Biochemistry emphasizes methods and methodology in the biological and biochemical sciences and all fields impinging on them. The journal publishes original research as well as reviews of methods as they apply to biochemistry and is broadening its scope to include cell biology, immunology, genetics, and biochemical aspects of pharmacology.

Volumes 168–175 (1988), 16 issues In the U.S.A. and Canada: $880.00
ISSN: 0003-2697 All other countries: $1039.00

Sample copies and privileged personal rates are available.
For more information, please write or call:

ACADEMIC PRESS, INC., Journal Promotion Dept.
1250 Sixth Avenue, San Diego, CA 92101, U.S.A.
(619) 230-1840

ACADEMIC PRESS, INC., *Harcourt Brace Jovanovich, Publishers*
San Diego New York Boston London Sydney Tokyo Toronto
S8020

GRUNE & STRATTON, INC.

An informative and authoritative new text!

COMPLICATIONS OF DIABETES: PREVENTION AND TREATMENT

R. Van Schilfgaarde, M.D.

Complications of Diabetes: Prevention and Treatment presents the first complete coverage of the latest available techniques for the early detection, treatment, and prevention of the severe complications of diabetes. The impact of this generalized metabolic disease upon individual organ systems is analyzed in-depth, and the latest approaches to appropriate management are discussed in detail.

1987, 424 pp., $64.50/ISBN: 0-8089-1853-2, Order Code: 794691

The ninth in a series of biennial in-depth reviews!

TRANSPLANTATION TODAY, VOLUME IX

Pekka Häyry, M.D., Saija Koskimies and Felix T. Rapaport, M.D.

Transplantation Today, Volume IX, provides a global overview of all that transplantation has to offer today to patients suffering from end-stage disease of vital organs. Comprised of over 1,000 contributions from physicians and scientists representing 47 different nations, this volume is the unique authoritative compendium for world transplantation.

1987, 3,000 pp., $298.00/ISBN: 0-8089-1855-9, Order Code: 791951

A valuable compendium on the present day knowledge on the pharmacological aspects of cyclosporine!

CYCLOSPORINE: PHARMACOLOGICAL ASPECTS

Edited by

Barry D. Kahan, M.D., Ph.D.

This unique new book is the first of its kind devoted to an intensive review of the pharmacological activity of cyclosporine. It describes in detail the pharmacological basis for the use of cyclosporine, and provides guidelines for the safe and effective utilization of this new immunosuppressive agent.

1986, 272 pp., $68.95/ISBN: 0-8089-1856-7, Order Code: 792226

G&S **GRUNE & STRATTON, INC.** *Harcourt Brace Jovanovich, Publishers*
Attn: Promotion Dept., Orlando, FL, 32887-0430, U.S.A. *65047c*

Please enter the following order:

ORDER CODE	AUTHOR/TITLE/VOLUME NO.
_____	_____
_____	_____
_____	_____

☐ Please check if you are a Grune & Stratton or Academic Press author. U.S. Customers: Payment will be refunded for titles on which shipment is not possible within 120 days.
Prices are in U.S. dollars and are subject to change without notice.

SAVE: Prepay or use your credit card and we pay postage and handling.

Please check one box:

☐ Payment Enclosed (add applicable sales tax)
☐ American Express ☐ Diners Club
☐ MasterCard ☐ Visa ☐ Bill Me

Name _____ *(Please print)*
Specialty _____
Address _____
City/State/Zip _____
Charge Card # _____
Signature _____
Expiration Date (mo/yr) _____

Please do not remove. A photocopy may be used.